

IN THE SPECIFICATION

The paragraph beginning at page 2, line 10 has been amended as follows:

The present invention is based on the recognition that notches or grooves, which are preferably cut into the inside surface of the metallic vacuum housing, allow the vacuum housing to expand locally when heated due to being struck by scattered electrons, and to contract. The notches or grooves may be cut with a laser and may preferably are less than 0.5mm or 0.3mm deep.

The paragraph beginning at page 4, line 12 has been amended as follows:

The shaft 5 that is accepted vacuum-tight in the insulators 22 and 24 is set at a positive high-voltage $+U$ for the rotating anode 2. As a result, the tube current flows via the roller bearings ~~5 and 6~~ and 7. As evident from the illustration depicted in Fig. 1, a negative high-voltage $-U$ is set at one terminal of the cathode 1. Across the terminals of the cathode 1 lies the filament voltage U_H . The vacuum housing 3 is grounded as illustrated by the ground symbol 17. The voltages $+U$, $-U$ and U_H for the anode 2 and the cathode 1 are provided by suitable power supplies and electric cables generally known in the art (the power supplies and the electric cables are not shown in Fig. 1). Therefore, the exemplary X-ray tube according to Fig. 1 is a so-called two-pole X-ray tube.